# SPECIFICATION

Electronic Version 1.2.8

Stylesheet Version 1.0

# PERSONAL SAFETY DEVICE

## Background of Invention

[0001] This invention relates to personal safety devices. Specifically, it relates to devices that can be carried by a person and used to sound an alarm and to ward off an attacker with a spray of a noxious gas.

[0002] There are many personal safety devices on the market today. Some of them are whistles, which could be used by the user to alarm others in the vicinity of the danger. Thus, a potential robbery could be averted by a victim"s action of sounding the whistle and alarming people on the street of the need to come to the rescue of the victim. However, sounding an alarm may not be enough to avert an attack. Many violent crimes may be committed by attackers who are simply too bold to be scared away by a sound of the alarm.

[0003] Other types of personal safety devices are designed to spray an attacker with a noxious gas. Such devices are widely known as pepper sprays or MACE. A noxious gas or mixture of gasses is stored inside of a pressurized container. When the device is activated, the noxious gas escapes the container in a spray which could be directed at a face of an attacker. These devices could be effective in discouraging a would be attacker from committing a crime or in allowing the victim a chance to escape while the attacker is distracted by the effects of the noxious gas sprayed in his face.

[0004] However, one of the shortcomings of the noxious spray devices lies in the fact that they do not alarm the attacker of the impending spray defense. Thus, attacker could proceed with the attack and wound or otherwise harm the victim before the victim has a chance to use the spray. It is plausible to assume that some attackers would not proceed with an attack if a loud sound alarm was sounded by the victim prior to use of the spray. Additionally, use of the spray does not alert others in the

area of the victim"s distress since sprays do not make much noise.

[0005] What is needed is a personal safety device designed to be capable of sounding an alarm and, if necessary, of spraying the attacker with a noxious gas. Such device could avert many violent crimes by discouraging attackers with a sound alarm. Furthermore, if the sound alarm does not scare away the attacker, then the victim would have an option to use the noxious gas spray to stop the attacker.

## Summary of Invention

[0006] This invention is aimed at providing a personal safety device. The personal safety device is comprised of a housing member, which houses a repellant spray member and a sound generating member.

[0007] The personal safety device has means well known in the art for activation of the repellant spray member, wherein upon activation of the repellant spray member a repellant stored inside of the repellant spray member is released from the repellant spray member.

[0008] Additionally, the personal safety device has means well known in the art for activation of the sound generating member, wherein upon activation of the sound generating member a sound is emitted from the sound generating member. The sound emitted by the sound generating member could be a loud noise or a whistle. The emitted sound could also be sound waves that are audible to animals and not audible to humans to ward off attacking dogs and other attacking animals.

[0009] In one preferred embodiment of the invention, a user has a choice of activating either the repellant spray member, or the sound generating member, or both. Any means well known in the art could be used to achieve this goal.

[0010] Therefore, it is the object of the present invention to provide a personal safety device to be used in prevention of a physical attack or a robbery.

[0011] It is another object of the present invention to provide a personal safety device to be used in warding off of a physical attack or a robbery.

[0012] These and other features, aspects and advantages of the present invention will

become better understood with reference to the following description, appended claims, and accompanying drawings.

## Brief Description of Drawings

[0013] FIG. 1 depicts a front cross-sectional view of one of the embodiments of the personal safety device.

## Detailed Description

[0014] This invention is aimed at providing a personal safety device *1* depicted in cross-section in *Fig. 1* . The personal safety device *1* is comprised of a housing member *2* , which houses a repellant spray member *3* and a sound generating member *4* .

[0015] The personal safety device *1* has means well known in the art for activation of the repellant spray member *3* , wherein upon activation of the repellant spray member *3* a repellant stored inside of the repellant spray member *3* is released from the repellant spray member *3* . One possible arrangement for such means is shown in *Fig. 1* , where upon manual depression of an actuator *7* integrated with the housing member *2* , a central actuator pad *14* is depressed, which depresses a repellant actuator pad *13* , which in turn depresses a repellant actuator pin *10* . The depression of the repellant actuator pin *10* causes the repellant spray member *3* to release the repellant by means well known in the art. The repellant could be a noxious gas or mixture of noxious gasses such as MACE, stored inside of the repellant spray member *3* by means well known in the art. The repellant travels from the repellant spray member *3* into the first tube *15* and exits the housing member *2* via a first aperture *5* located on the housing member *2* .

[0016] Additionally, the personal safety device *1* has means well known in the art for activation of the sound generating member *4* , wherein upon activation of the sound generating member *4* a sound is emitted from the sound generating member *4* by means well known in the art. The sound emitted by the sound generating member *4* could be a loud noise or a whistle. The emitted sound could also be sound waves that are audible to animals and not audible to humans to ward off attacking dogs and other attacking animals.

[0017] One possible arrangement for means of activation of the sound generating

member *4* is shown in *Fig. 1*. In this embodiment, the sound generating member *4* is comprised of a compressed gas container *8* coupled to a horn *9* via a second tube *16*. Upon manual depression of the actuator *7*, a central actuator pad *14* is depressed, in turn depressing a sound actuator pad *12*, which action in turn depresses a sound actuator pin *11*. The depression of the sound actuator pin *11* causes the compressed gas container *8* to release, by means well known in the art, a compressed gas stored inside of it. The compressed gas travels from the compressed gas container *8* into the second tube *16*, and enters a horn *9* where a sound is generated by means well known in the art. The sound then exits the housing member *2* via a second aperture *6* located on the housing member *2*.

[0018] In one preferred embodiment of the invention, a user has a choice of activating either the repellant spray member *3*, or the sound generating member *4*, or both. Any means well known in the art could be used to achieve this goal. One example of such means is shown in *Fig. 1* where the actuator *7* can slide along a top *17* of the housing member *2*, thus giving to the user an option of depressing either the repellant actuator pad *13*, or the sound actuator pad *12*, or the central actuator pad *14*. Here, depression of the repellant actuator pad *13* by the actuator *7* results in depression of the repellant actuator pin *10*, which action results in activation of the repellant spray member *3*. Similarly, depression of the sound actuator pad *12* by the actuator *7* results in depression of the sound actuator pin *11*, which action results in activation of the sound generating member *4*. Finally, depression of the central actuator pad *14* by the actuator *7* leads to simultaneous depression of both the repellant actuator pad *13* and the sound actuator pad *12*, which actions result in simultaneous depression of the repellant actuator pin *10* and the sound actuator pin *11*, with the end result of simultaneous activation of both the repellant spray member *3* and the sound generating member *4*.

[0019] It will be further understood that the embodiments described herein are merely exemplary and that a person skilled in the art may make variations and modifications without departing from the spirit and scope of the invention. All such variations and modifications are intended to be included within the scope of the appended claims.